

REMARKS

Claims 1 – 7 and 21 – 24 are now pending in the application. Claims 8 – 20 have been cancelled. Claims 21 – 24 are new. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

ALLOWABLE SUBJECT MATTER

The Examiner states that claims 2 – 5 would be allowable if rewritten in independent form. Accordingly, Applicants have submitted new claim 21. New claim 21 reflects claim 2 in independent form. Claims 3 – 5 have been rewritten as new claims 22 – 24. Therefore, claims 21 – 24 should now be in condition for allowance.

REJECTION UNDER 35 U.S.C. § 103

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,123,163 (Otsu) in view of U.S. Pat. No. 6,808,471 (Bauerle). This rejection is respectfully traversed.

The Examiner has provided two references employing powertrain configurations distinct from the instant invention. Specifically, Otsu which is specifically directed to a hybrid powertrain vehicle and Bauerle which is specifically directed to a powertrain having an engine providing cylinder deactivation.

Otsu discloses a controller 150 for a hybrid car 100. An electronic controlling apparatus for the hybrid car 100 is illustrated in FIG. 32. Specifically, the controlling apparatus includes an accelerator sensor 164, a vehicle speed sensor 162, a torque

sensor 165, an engine 182, a generator motor 183, an addition section 184 and a control means 177. The control means 177 includes a torque detection means 166, aimed torque calculation means 168, aimed opening means 169, revolution number detection means 167 and a motor control means 180.

During operation of the hybrid vehicle, a torque amount T is measured with respect to a driving output power of the engine 182. When the torque amount from the accelerator sensor 164 is short from a request torque amount, a driving output power from the motor generator 183 is added by an addition section 184 to obtain a vehicle driving force 185. Col. 19, Lines 65 – 67 through Col. 20, Lines 1 – 5.

The Examiner notes that Otsu fails to show an idle speed governor system. Applicants assert that the inherent nature of a hybrid vehicle would not require or suggest the use of an idle speed governor system. Specifically, the electronic controlling apparatus of Otsu allows a motor generator (such as generator motor 183) to assist or provide power in place of a gasoline engine (such as engine 182) during idle conditions. As provided by Otsu, a switch 193 has a switching function of software program control, and performs, based on the vehicle speed signal V , for example, in an ordinary stopping condition (the vehicle speed $V = 0$ and the engine revolution number is equal to the preset value), starting only with the motor generator 183, and changes over, when the vehicle speed becomes equal to the preset vehicle speed. Col. 25, Lines 50 – 59. Applicants argue that because the hybrid powertrain configuration described by Otsu relies on cooperation of the engine 182 and motor generator 183 to provide smooth running driving power, there is no motivation in Otsu to include an idle governor system.

Bauerle discloses a method for providing cylinder deactivation control. A powertrain control module (PCM) 26 includes an electronic throttle control (ETC) 27 for operating a throttle 22. The ETC provides signals to the motor 24. As provided by Bauerle, “(the) ETC 27 activates motor 24 to position throttle 22 in response to the positioning of accelerator pedal 23, but various other functions such as idle speed control, engine governor control, cruise control and torque reduction are also provided for providing the ETC function in a known manner.” Col. 2, Lines 61 – 66. While Bauerle mentions the use of idle control, there is no teaching of how idle control would be implemented relative to the drive train 10. Moreover, there is no teaching or suggestion of how an idle control system would be adapted for use in the hybrid powertrain of Otsu.

The Examiner states that “it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the vehicle of Otsu et. al. with the methods and apparatus for providing security for electronically controlled cylinder activation and deactivation having a throttle system as taught by Bauerle et. al. in order to improve simplicity engine noise reduction”. Applicants disagree. At the outset, Applicants point out that the motivation behind the instant invention is to provide a governor system for limiting the ground speed of a vehicle while maintaining the idle speed of the engine, not to improve engine noise reduction. As noted in the present disclosure, small engines often suffer from engine idle speed problems. For example, when the vehicle is traveling quickly and the accelerator pedal is released, occasionally the engine speed can drop rapidly causing the engine to stall. To overcome this problem, attempts have been made to use an engine idle speed governor. See e.g.,

paragraph [0005]. Assuming the Examiner's assertion that Otsu teaches a vehicle having a transmission, a ground speed feedback shaft, an engine speed feedback shaft and a ground speed governor system and Bauerle teaches an idle speed control, the teaching of either would not provide motivation for combination with the other. Further yet, and more importantly, the Examiner asserts that the motivation would be to provide (simplified) engine noise reduction. However, Applicants respectfully submit that the motivation of the instant invention is not to reduce engine noise.

In sum, Applicants respectfully submit that not only does no teaching or motivation exist to combine the hybrid powertrain of Otsu with the cylinder deactivation powertrain of Bauerle, but further Otsu and Bauerle specifically teach away from their combination. It is unclear as to what the system resulting from the combination of Otsu and Bauerle would be, if any such system could be envisioned.

Applicants respectfully refer the Examiner to Section 2143 of the Manual of Patent Examining Procedure (MPEP). In particular, Section 2143.01 of the MPEP specifically states that the prior art must suggest the desirability of the claimed invention. Specifically, "obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art." *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988). Further, this section specifically states that "the mere fact that references can be combined or modified does not render the result and combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990) (emphasis in original).

Further, although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or a motivation in the reference to do so." *Id.* at 1432. Thus, the motivation relied upon by the Examiner to combine the teachings of Otsu with the teachings of Bauerle cannot stand. Accordingly, reconsideration and withdrawal of the rejection of claim 1 is respectfully requested.

Claims 6 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Otsu in view of Bauerle and further in view of U.S. Pat. No. 6,612,286 (Houston). This rejection is respectfully traversed.

Applicants respectfully submit that the discussion related to claim 1 above places these claims in condition for allowance. Accordingly, reconsideration and withdrawal of the rejection of claims 6 and 7 are respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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